

# **AGENT:**

## **SALMONELLA BACTERIA**

### **DESCRIPTION:**

Short, plump rods found in the intestinal tracts of poultry and animals. They cannot be seen, tasted or smelled.

### **SOURCES:**

Raw meats, poultry, eggs, fish, animal products. These bacteria occur naturally in the intestinal tracts of poultry and animals.

### **SALMONELLOSIS IS TRANSMITTED BY:**

1. Not washing hands after using restrooms.
2. Not washing hands and cutting surfaces before and after handling raw animal products.
3. Not cooking poultry and poultry products thoroughly - to at least 165 degrees F.
4. Putting cooked meats onto the same platter used for the raw meat.
5. Not keeping hot foods hot and cold foods cold.
6. Not reheating leftovers to at least 165 degrees F.

## **POTENTIALLY HAZARDOUS FOODS:**

Meat and meat products, poultry, egg products, dairy products, lightly cooked items.

## **TEMPERATURE DANGER ZONE:**

45 degrees F to 140 degrees F. Refrigeration simply limits growth. The bacteria will begin to multiply once more if the temperature is between 45 degrees F and 140 degrees F.

## **SALMONELLA POISONING SYMPTOMS**

Within 12 to 26 hours - diarrhea, abdominal pains, headache, chills, fever and vomiting.

## **PREVENTION**

1. Always have clean hands.
2. Keep work surfaces, utensils and rags sanitized with a bleach solution (2 tbs: 1 gallon water).
3. Do not interchange the preparation platter and the serving platter.
4. Cook all poultry and poultry products to 165F.
5. Refrigerate leftovers immediately in shallow pans.
6. Keep raw products isolated from cooked products.
7. Always store raw foods below cooked foods.

# **AGENT:**

## **STAPHYLOCOCCUS AUREAS**

### **DESCRIPTION:**

Small spheres in pairs, bunches, grape-like clusters or chains. Toxin produced by the bacteria causes the illness. Toxin cannot be destroyed by cooking.

### **SOURCES:**

Usually food service workers. May be found naturally in nasal passages and on skin of up to 50% of healthy individuals. Introduced to food by persons with open and infected cuts or boils, sneezing or coughing on food and by improper sanitary practices after using the restroom.

### **STAPHYLOCOCCUS TRANSMITTED BY:**

1. Not washing hands after using restrooms.
2. Workers with open cuts or infections handling food.
3. Workers touching cooked foods..
4. Improper cleaning and sanitizing of equipment.
5. Improper cooling and refrigeration.
6. Keeping foods at room temperature.
7. Storing foods in large pots in refrigerator. Food products should be no deeper than 4 inches.
8. Coughing or sneezing on food products.

## **POTENTIALLY HAZARDOUS FOODS:**

Meat eat dishes, protein salads, egg products, sliced meats, potato salad, custards, whipped cream items, desserts made with dairy products.

## **TEMPERATURES:**

Foods kept at or below 45 degrees F will slow bacterial growth. Food cooked to 165 degrees F will kill most harmful bacteria, but the toxin is heat stable and will not be destroyed by cooking. Cook all foods rapidly and hold at 140 degrees F or above and at 45 degrees F or below.

## **STAPHYLOCOCCUS POISONING SYMPTOMS**

Nausea, vomiting, diarrhea and severe cramps within 3 to 8 hours.

## **PREVENTION**

1. Wash hands after coughing, sneezing, smoking or going to the restroom.
2. Practice good personal hygiene.
3. Cool foods rapidly at 45 degrees F or below within 4 hours.
4. Put foods in shallow pans (4 inches or less) in refrigerator to facilitate quick chilling.
5. Keep cold foods at 45 degrees F or below and hot foods at 140 degrees F or above.
6. Rapidly heat all food items on a stove, oven or in a steamer. Do not heat on steam table.
7. Do not come to work if sick.

# **AGENT:**

## **CLOSTRIDIUM BOTULINUM**

### **DESCRIPTION:**

Anerobic, thin, whip-like rods in short chains or single rods. Produce spores that are inactive but can survive under extreme conditions. Produces a deadly toxin.

### **SOURCES:**

Are in soil, o n vegetables and other foods.

### **BOTULISM TRANSMITTED BY:**

Improperly canned foods, smoked foods, improperly held leftovers, particularly baked potatoes.

### **POTENTIALLY HAZARDOUS FOODS:**

Low-acid foods such as meat, poultry, fish, moist vegetables when they are improperly canned or otherwise sealed in a low-air or airless environment (usually home-canned). Improperly smoked or prepared or unrefrigerated foods after cooking.

## **TEMPERATURES:**

Pressure-cook food at high temperature in canning. The toxin is vulnerable to high temperatures. Keep foods out of the danger zone (45 degrees F to 140 degrees F).

## **BOTULISM POISONING SYMPTOMS**

General weakness, constipation, headache, double vision, impaired speech and difficulty in chewing and swallowing within 12 to 36 hours. Paralysis which can kill.

## **PREVENTION**

1. Use only commercially canned foods.
2. Discard WITHOUT TASTING any bulged or damaged cans.
3. Refrigerate all leftovers immediately after using.

# **AGENT:**

## **CLOSTRIDIUM PERFRINGENS**

### **DESCRIPTION:**

Rod-shaped, spore-forming bacteria which thrive in the absence of oxygen.

### **SOURCES:**

Soil, dust, intestinal tracts of humans and animals.

### **CLOSTRIDIUM PERFRINGENS TRANSMITTED BY:**

1. Keeping foods at room temperature.
2. Holding foods at improper temperatures (in danger zone - 45 degrees F - 140 degrees F).
3. Storing foods in large pots in refrigerators.  
Foods in containers must be stored no more than 4 inches deep.
4. Inadequate reheating of cooked foods. Must be rapidly reheated to 165 degrees F.
5. Cross-contamination.

### **POTENTIALLY HAZARDOUS FOODS:**

Cooked meats and poultry that have remained at room temperature for several hours or have been improperly cooled and reheated. Gravies, soups, stews and sauces improperly stored and reheated.



## **TEMPERATURE DANGER ZONE:**

45 degrees F to 140 degrees F. Rapidly reheat leftover foods to 165 degrees F.

## **CLOSTRIDIUM PERFRINGENS POISONING SYMPTOMS**

Nausea, diarrhea, gas pains within 8 to 24 hours.

## **PREVENTION**

1. Cool foods rapidly. Chill foods in an ice bath prior to refrigeration - down to 70 degrees F within 2 hours, down to 45 degrees F within 4 hours.
2. Put foods in shallow pans (2-4 inches deep) in refrigerators.
3. Keep cold foods at 45 degrees F or below.
4. Keep hot foods at 140 degrees F or above.
5. Reheat leftover foods rapidly to 165 degrees F.
6. Wash hands after using restrooms.
7. Wash hands after handling raw meat and poultry and doing activities other than food handling.
8. Clean and sanitize kitchen equipment especially meat slicers.
9. Send workers with illnesses such as diarrhea home.

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